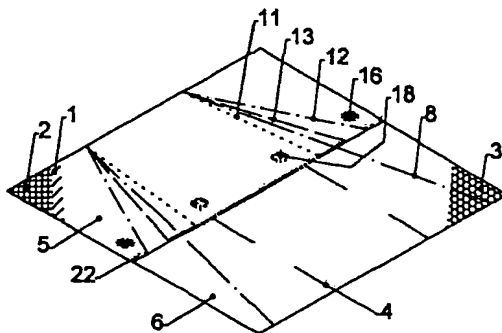




INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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(21) International Application Number: PCT/SE97/02186 (22) International Filing Date: 19 December 1997 (19.12.97) (30) Priority Data: 9604840-0 27 December 1996 (27.12.96) SE (71)(72) Applicants and Inventors: NYGREN, Lars [SE/SE]; Glasgergsgatan 276, S-431 34 Mölndal (SE). KARLSTEN, Dan [PT/SE]; Trumpetargränd 14, S-412 67 Göteborg (SE). MATTSSON, Lars [SE/SE]; Ubbhult Pl 868, S-430 64 Hällingsjö (SE). STRÖMBERG, Lars [MC/SE]; Pionstigen 12, S-435 30 Mölnlycke (SE). (74) Agent: MATTSSON, Lars; Sorbinco AB, Hönekullavägen 25, S-435 44 Mölnlycke (SE).		(81) Designated States: CA, JP, US, Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published With international search report. With amended claims. In English translation (filed in Swedish).

(54) Title: MALE INCONTINENCE POUCH



(57) Abstract

Male incontinence pouch intended to allow the wearer freedom of choice to determine for himself whether he wishes to apply the pouch around the penis only or the penis and scrotum. A distinction of the invention is thus that with retained X-axis width the Y-axis in a three-dimension view can thus be adapted thanks to the fact that the short side surface's (5) upper edged (20) applied to the body on the penis or scrotum is adapted upon application in its length insofar that a pleat (14) upon removal retains normal width but increases the length of the upper edge (20) whereby the bottom angle (21) forms a downwards hanging somewhat angled and flared U-shape without it thereby being necessary to make any recess and is thus adapted for application under the scrotum.

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MALE INCONTINENCE POUCH

The present invention relates to a male incontinence pouch intended to give the user an optimally designed product where freedom of choice is conferred to determine for himself whether he desires an applicable pouch around the penis alone or the penis and scrotum, specifically insofar that the depth of the pouch, i.e., the Y-axis in a 3-dimensional view can thus be adapted. I.e., the incontinence pouch in both application versions is equally wide in its 3-dimensional X-axis.

The purpose of the present invention is to eliminate the known drawbacks that impair existing incontinence pouches. In an incontinence pouch known from patent SE-8303663-2 there is as patent criterion a recess around the scrotum in order to accommodate both penis and scrotum, i.e., one has optimised the incontinence pouch for men with what is termed a retracted penis. And in another incontinence pouch known from patent SE-8400056-1 it is stated with regard in its male version that the incontinence pouch is characterised by being used for the opposite purpose, namely solely for penile application. It is also so with the other incontinence pouches commercially available on the market, which is also confirmed by the attached instructions on the use of the pouches i.e. there is today no form of incontinence pouch that basically functions well for these two means of application.

This is achieved in accordance with the invention by means of a specific 2-stage pleat in its 3-dimensional X-axis, which upon application is optimally adapted when the Y-axis can thus be used in two stages, for the penis only or for penis and scrotum since a downwards hanging, somewhat flared, angled natural U-shape is formed, anatomically suitable for enclosing the scrotum.

This differs from SE-8303663-2 whose version with its recess implies that men with what is termed a normal penis can more easily slide out of the recess in the incontinence pouch and that overfilling definitely occurs more easily with this relatively deeper recess, especially in what are termed sitting postures. The incontinence pouch is compromised for width for this normal penis application.

The SE-8400056-1 version excludes men with a retracted penis for scrotal application as it is too narrow, for which reason this incontinence pouch is now

sold to for normal penile application solely. Should the pouch be used for men with a retracted penis, here too the penis will easily slide out, whereby the small available overlapping absorbent surface in the incontinence pouch will imply a guaranteed major risk of leakage. Under the existing patent criteria there is no means of generating a functioning pouch intend to enclose both penis and scrotum.

The invention will be described hereinafter in greater detail with reference to the enclosed drawings, where

- Fig. 1 shows a view of the production in a flat version with the fold lines and hot-melt adhesive sports required in the invention.
- Fig. 2 shows a view of the product in a pleated version with one side folded in a first ninety-degree angle and subsequently in a further such angle i.e. a total of 180 degrees.
- Fig. 3 shows a lateral view of the product upon application the removable adhesive (18) has been removed and the upper edge's (20) length thus maximised, whereby the pull-down angle (21) is optimised for application comprising penis and scrotum.

The incontinence pouch showed in the figures comprises an outer liquidproof layer (1), e.g., a polyethylene film layer that may have been provided on its exterior with a soft fibrous material (2), e.g., nonwoven, in order to avoid having the polyethylene film layer directly against the body, an inner liquid-permeable material (3) which allows through the urine from e.g. nonwoven, an absorption body (4) applied directly between the liquidproof layer (1) and the liquid-permeable material (3), forming a bag shape in that the laminate upon e.g. folding and sealing liquid-permeable material (3) against liquid-permeable material (3) displays a short side surface (5) intended, in a manner of speaking, to face the body and 40%-60% shorter than the long side surface (6) intended to be placed against underpants or the like.

The side (7) displayed in the figures is delineated by the main fold line (8) and is folded inwards towards the short side (5). The side (7)'s outside (9) and inside (10) thus formed are then of equal length. However, by double-folding the inside (10) outwards with an inner base line (11) and outer base line (12) with a top fold line (13) located between them, there is obtained a pleat (14) on whose upper side (15) a permanent adhesive (16) is attached to the opposite inside (10) and on whose under side (17) a removable adhesive (18) is attached to the short side surface (5). Alternatively, a separable ribbon (19) or the like can be attached to the removable adhesive (18) straight across the sides (7) on their outside (9). Adhesive in this context refers to a variety of sealing material such as glue, cold-glue, hot-melt, lacquer, wax, Velcro fasteners, Zip ribbons, etc. Alternatively, it can also be conceived the removable adhesive (18) is not applied at all, whereby the produce is then primarily adapted for men with a retracted penis where the fold itself is unfolded during application. Alternatively, it can also be conceived that the removable adhesive (18) is replaced by a permanent adhesive (16), in accordance with the following, it is then primarily adapted for men with a normal penis.

In application for solely a normal penis, the incontinence pouch is to be used without separating the removable adhesive (18) or the separable ribbon (19). The incontinence pouch's short side surface's (5) upper edge (20) will thus be optimally high up when the removable adhesive (18) or the separable ribbon (19) has been separated. This is so as the outer base line (12) angle relative to the base line angles on the pleat (14) determines the upper edge's (20) length and pull-down angle (21), i.e., bottom angle. Also the outer base line's (12) location on the upper edge (20) in relation to where the side-edge seal (23) is, affects the upper edge's (2) length. I.e., if the outer base line's (12) location on the upper edge (20) is below the side-edge seal (23), the distance between them will generate an inclusive increase in the width of the available upper edge (20). It thus follows that if said distance is in any way sealed, this inclusion is eliminated. This alternative may be desirable both if the permanent adhesive (16) has not been applied, as one can then obtain a fixed determination of the upper edge's (20) width without the pleat (14) needing to be unfolded, and also if the permanent adhesive (16) is thereby replaced by the removable adhesive (18), which also in this case generates a 2-stage product also then adapted for normal penile and penile-scrotal applications. A relative drawback is that when

the short-side surface (5) is not attached in the inside (10), an opening can be obtaining during application there.

In practice this invention criterion implies that there has thus also been obtained in one and the same product a product that can be and is thereby optimised for both solely a penis or penis and scrotum, in that the incontinence pouch thanks to the short side surface's (5) upper edge (20), alternatively like a cylindrical container, can be applied at the root of the penis in penile application solely, or in penile/scrotal application can be removed and drawn down and adapted anatomically correctly in that the upper edge (20) forms a downwards hanging somewhat flared angled u-shape.

For secure fixing to underpants, sanitary briefs or the like, known techniques such as panty fixing tape can be used.

The invention is naturally not limited to the forms shows on the drawings and these can be varied in many ways within the framework of the claims.

CLAIMS

1. Male incontinence pouch comprising an outer liquidproof layer (1), e.g., a polyethylene film layer that may have been provided on its exterior with a soft fibrous material (2), e.g., nonwoven, an inner liquid-permeable material (3) e.g. nonwoven, an absorption body (4) applied between the liquidproof layer (1) and the liquid-permeable material (3), forming a bag shape in that the laminate in e.g. folding and edge-sealing the liquid-permeable material (3) against liquid-permeable material (3) displays a short side (5), the long side (6) intended to be placed against underpants or the like characterised in that for both the short side surface's (5) and long side surface's (6) common main fold line's (8) fold into the sides (7) thus obtained, thereby forming in each instance an inside (10) where in the one facing this inside's (10) outer base line (12) and a one facing the short side surface's (5) inner base line (11) during the unfolding of the top fold line (13) located between them there will be generated an under side (17) delineated against the inner base line (11) and a upper side (15) delineated against the outer base line (12) which during unfolding by means of the top fold line (13) whose common base at the bottom with the main fold line (8) and the inner base line (11) as well as the outer base line (12) thus conosistically generates the pleat (14) out on the short side surface's (5) upper edge (20), which pleat (14) allows an increase in available length of the short side surface's (5) upper edge (20), thereby implying that the upper edge (20) can be drawn out with unimpaired relative product width, which pleat (14) need not be unfolded if the outer base line's (12) distance (22) on the upper edge (20) is below the side edge seal (23) and if this distance (22) is sealed between the short side surface (5) and long side surface (6).

2. Male incontinence pouch as claimed in claim 1 characterised in that the short side surface's (5) upper edge's (20) length and thus its position can be freely determined in stages by applying between the pleat's (14) upper side (15) and its opposite inside (10) a permanent non-removable adhesive (16) which thus attaches these sides, and between the pleat's (14) under side (17) and its opposite short side surface (5) applying a removable adhesive (18) which thus attaches these sides; generating an incontinence pouch that in application without removal of the removable adhesive (18) sets a nominal product width for normal penile application in that available an available upper edge's (20) length diminishes when the removal adhesive(18) attaches to the pleat's (14) under

side (17) and the opposite short side surface (5) in that the upper edge's available lengths is then permanently minimised, i.e., in order upon removal of the removal adhesive (18) to set a nominal product width for application of penis and scrotum in that the upper edge's (20) available length is then permanently maximised where the upper edge (20) also then forms a permanently determined downwards hanging somewhat flared angled U-shape without it thereby being necessary to make any recess.

3. Male incontinence pouch as claimed in claim 1 characterised in that the short side surface's (5) upper edge's (20) and thus its position can be freely determined in stages in that the pleat (14) is not unfolded, when the outer base line's (12) distance (22) on the upper edge (20) is below the side edge seal (23), and if this distance (22) is sealed between the short side surface (5) and the long side surface (6) and where the permanent adhesive (16) is replaced by the removable adhesive (18) which in application without removal of the removable adhesive (18) sets a nominal product width for normal penile application in that an available upper edge's (20) length diminishes where the removable adhesive (18) attaches to the side's (7) inside (10) and the opposite short side surface (5) in that the upper edge's (20) available length is then permanently minimised, i.e., in order upon removal of the removable adhesive (18) to set a nominal product width for application of both penis and scrotum in that the upper edge's (20) available length is then permanently maximised where the upper edge (20) then also forms a permanently determined downwards hanging somewhat flared angled U-shape without it thereby being necessary to make any recess.

4. Male incontinence pouch as claimed in claim 1 characterised in that the short side surface's (5) upper edge's (20) length and thus its position can be freely determined by applying between the pleat's (14) upper side (15) and its opposite inside (10) a non-removable adhesive (16) which thus attaches these sides, and between the sides' (7) outside (9) or inside (10) straight across the sides (7) attaching a separable ribbon (19) or the like which with these sides' joining generates an incontinence pouch which upon application without removal of the separable ribbon (19) sets a nominal product width for normal penile application in that an available upper edge's length is then permanently minimised, i.e., in order upon removal of the separable ribbon (19) to set a nominal product width for application of both penis and scrotum in the upper edge's available length is then permanently maximised where the upper edge (20) then also forms a

permanently determined downwards hanging somewhat flared angled U-shape without it thereby being necessary to make any recess.

5. Male incontinence pouch as claimed in claim 1 characterised in that the short side surface's (5) upper edge's (20) length and thus its position can be freely determined in stages in that the pleat (14) and its upper side (15) are folded against the side (7) inside (10) and that the outer base line's (12) distance (22) between the upper edge (20) and the side edge seal (23) between the short side surface (5) and long side surface (6) has been sealed and by applying between the pleat's (14) underside (17) and its opposite short side surface (5) a removable adhesives (18) which thus attaches these sides, generating an incontinence pouch which upon application without removal of the removal adhesive (18) sets a nominal product width for normal penile application in that an available upper edge's (20) length diminishes when the removable adhesive (18) attaches to the pleat's (14) underside (17) and the opposite short side surface (5) in that the upper edge's (20) available length is then permanently minimised, i.e. in order upon removal of the removable adhesive (18) to set a nominal product width for application of both penis and scrotum in that the upper edge's (20) available length is then permanently maximised where the upper edge (20) then also forms a permanently determined downwards hanging somewhat flared angled U-shape without it thereby being necessary to make any recess.

6. Male incontinence pouch as claimed in claim 1 characterised in that the short side surface's (5) upper edge's (20) length and this its position can be freely determined in stages in that the pleat (14) and its upper side (15) are folded against the side (7) inside (10) and that the outer base line's (12) distance (22) between the upper edge (20) and side edge seal (23) between the short side surface (5) and long side surface 86) has been sealed and by applying between the pleat's (14) underside (17) and its opposite short side surface (5) a permanent non-removable adhesive (16) which thus attaches these sides,; generating an incontinence pouch that sets a nominal product width for normal penile application in that an available upper edge's (20) length diminishes when the permanent non-removal adhesive (16) attaches to the pleat's (14) underside (17) and the opposite short side surface (5) in that the upper edge's (20) available length is then permanently minimised.

AMENDED CLAIMS

[received by the International Bureau on 25 May 1998 (25.05.98);
original claims 1-6 replaced by new claims 1-7 (3 pages)]

1. Male incontinence pouch comprising an outer liquidproof layer (1), e.g., a polyethylene film layer that may have been provided on its exterior with a soft fibrous material (2), e.g., nonwoven, an inner liquid-permeable material (3) e.g. nonwoven, an absorption body (4) applied between the liquidproof layer (1) and the liquid-permeable material (3), forming a bag shape in that the laminate in e.g. folding and edge-sealing the liquid-permeable material (3) against liquid-permeable material (3) displays a short side (5), the long side (6) intended to be placed against underpants or the like characterised in that for both the short side surface's (5) and long side surface's (6) common main fold line's (8) fold into the sides (7) thus obtained, thereby forming in each instance an inside (10) where in the one facing this inside's (10) outer base line (12) and a one facing the short side surface's (5) inner base line (11) during the folding of the top fold line (13) located between them there will be generated an under side (17) delineated against the inner base line (11) and an upper side (15) delineated against the outer base line (12) which during folding by means of the top fold line (13) whose common base at the bottom with the main fold line (8) and the inner base line (11) as well as the outer base line (12) thus conositically generates a pleat (14) out on the short side surface's (5) upper edge (20), which pleat (14) then allows an increase in available length of the short side surface's (5) upper edge (20), thereby implying that the upper edge (20) can then be drawn out with unimpaired relative product width, which pleat (14) need not be folded if the main fold line's (8) position is the same as the outer base line (12) or the top fold line (13).

2. Male incontinence pouch as claimed in claim 1 characterised in that alternatively a distance from the side edge seal (23) to the outer base line (12) can be generated by the distance seal (22) and between the short side (5) and the long side (6) placed below or level with the upper edge (20), and alternatively without the distance seal (22) when the distance from the side edge seal (23) is close to zero or zero.

3. Male incontinence pouch as claimed in claim 1-2 characterised in that the short side surface's (5) upper edge's (20) length and thereby its position can be freely determined in stages by applying between the pleat's (14) upper side (15) and its opposite inside (10) a permanent non-removable adhesive (16) which

thus attaches these sides, and between the pleat's (14) under side (17) and its opposite short side surface (5) applying a removable adhesive (18) which thus attaches these sides; generating an incontinence pouch that in application without removal of the removable adhesive (18) sets a nominal product width for normal penile application in such a way that the available upper edge's (20) length diminishes when the removal adhesive (18) attaches to the pleat's (14) under side (17) and the opposite short side surface (5) in that the upper edge's available lengths is then permanently minimised, i.e., in order upon removal of the removal adhesive (18) to set a nominal product width for application of penis and scrotum in that the upper edge's (20) available length is then permanently maximised where the upper edge (20) also then forms a permanently determined downwards hanging somewhat flared angled U-shape without it thereby being necessary to make any recess.

4. Male incontinence pouch as claimed in claim 1-2 characterised in that the short side surface's (5) upper edge's (20) and thereby its position can be freely determined in stages in that the pleat (14) is not folded and by applying between the side's (7) inside (10) and its opposite short side surface (5) a removable adhesive (18) which thus attaches these sides, generating an incontinence pouch that in application without removal of the removable adhesive (18) sets a nominal product width for normal penile application in such a way that the available upper edge's (20) length diminishes when the removable adhesive (18) attaches to the side's (7) inside (10) and the opposite short side surface (5) in that the upper edge's (20) available length is then permanently minimised, i.e., in order upon removal of the removal adhesive (18) to set a nominal product width for application of penis and scrotum in that the upper edge's (20) available length is then permanently maximised where the upper edge (20) also then forms a permanently determined downwards hanging somewhat flared angled U-shape without it thereby being necessary to make any recess.

5. Male incontinence pouch as claimed in claim 1-2 characterised in that the short side surface's (5) upper edge's (20) length and thereby its position can be freely determined by applying between the pleat's (14) upper side (15) and its opposite inside (10) a non-removable adhesive (16) which thus attaches these sides, and between or at the side's (7) outside (9) or inside (10) straight across the sides (7) attaching a separable ribbon (19) or the like which with these sides' joining generates an incontinence pouch which upon application without removal

of the separable ribbon (19) sets a nominal product width for normal penile application in that an available upper edge's length is then permanently minimised, i.e., in order upon removal of the separable ribbon (19) to set a nominal product width for application of both penis and scrotum in the upper edge's available length is then permanently maximised where the upper edge (20) then also forms a permanently determined downwards hanging somewhat flared angled U-shape without it thereby being necessary to make any recess.

6. Male incontinence pouch as claimed in claim 1-2 characterised in that the short side surface's (5) upper edge's (20) length and thus its position can be determined in that the pleat (14) is not folded and the main fold line's (8) position is the same as the outer base line (12) and by applying between the side's (7) inside (10) and its opposite short side surface (5) a permanent non-removable adhesive (16) which thus attaches these sides, sets a nominal product width for application of both penis and scrotum in that the upper edge's (20) available length is then permanently maximised where the upper edge (20) then also forms a permanently determined downwards hanging somewhat flared angled U-shape without it thereby being necessary to make any recess.

7. Male incontinence pouch as claimed in claim 1-2 characterised in that the short side surface's (5) upper edge's (20) length and thereby its position can be determined by applying between the pleat's (14) upper side (15) and its opposite inside (10) a permanent non-removable adhesive (16) alternatively a removable adhesive (18) which thus attaches these sides, and between the pleat's (14) under side (17) and its opposite short side surface (5) applying a non-removable adhesive (16) which thus attaches these sides; generating an incontinence pouch that in application without removal of the removable adhesive (18) sets a nominal product width for normal penile application in such a way that the available upper edge's (20) length diminishes when the removable adhesive (18) attaches to the pleat's (14) upper side (15) and the opposite inside (10) in that the upper edge's available lengths is then permanently minimised, i.e., in order when using the removable adhesive (18) and when removing of the removable adhesive (18) to set a nominal product width which generates a slightly longer upper edge's (20) length.

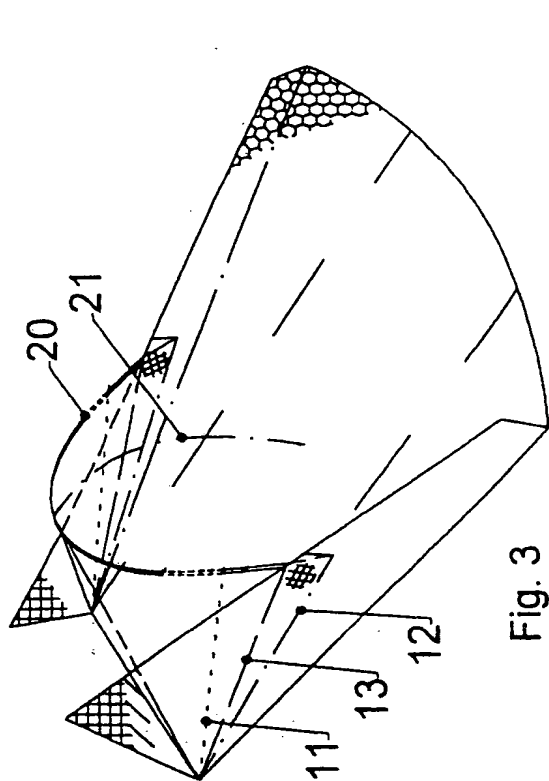


Fig. 3

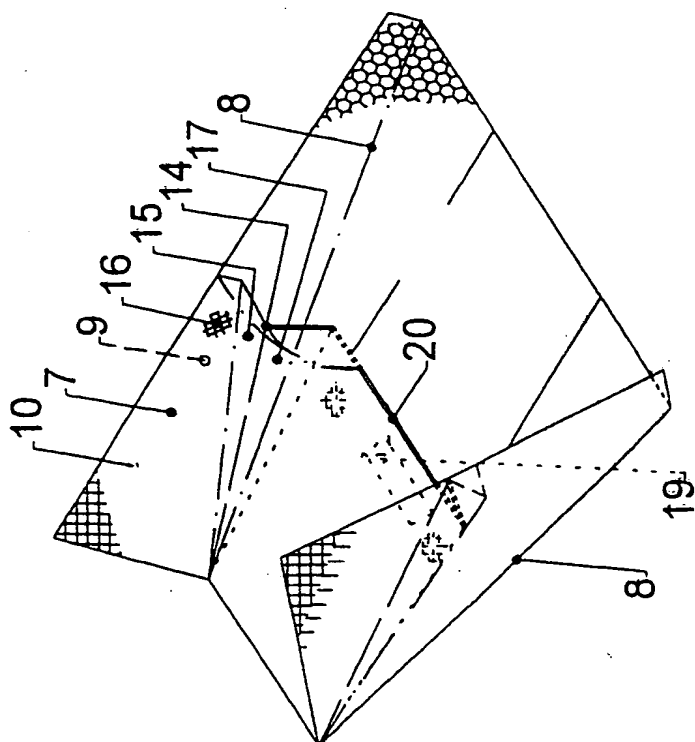


Fig. 2

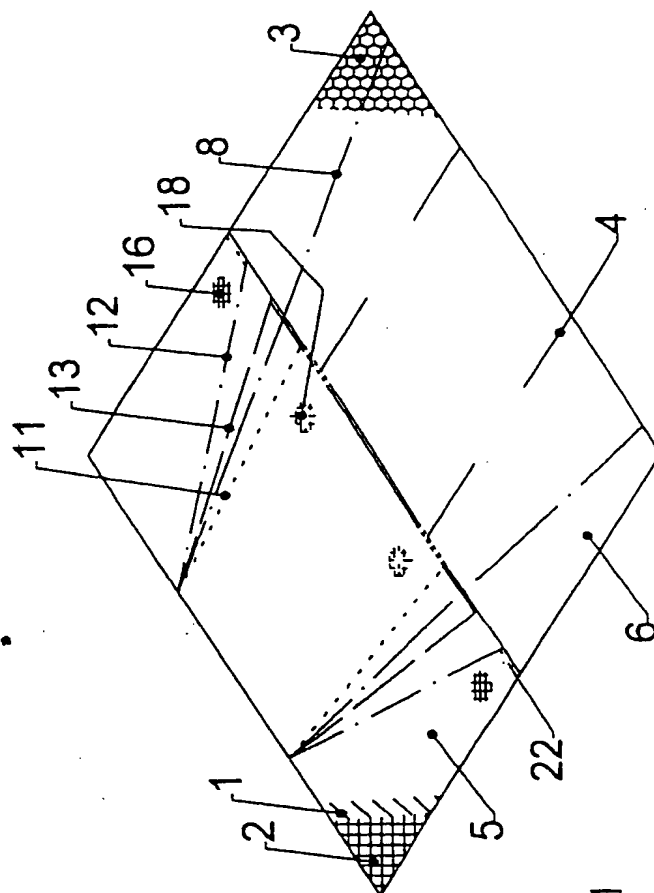


Fig. 1

INTERNATIONAL SEARCH REPORT

International application No.

PCT/SE 97/02186

A. CLASSIFICATION OF SUBJECT MATTER		
IPC6: A61F 5/453 According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED		
Minimum documentation searched (classification system followed by classification symbols)		
IPC6: A61F		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
SE,DK,FI,NO classes as above		
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EPODOC		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0191004 A2 (MÖLNLYCKE AB), 13 August 1986 (13.08.86), figures 4-5 --	1-6
A	GB 2057266 A (KIMBERLY-CLARK CORPORATION), 1 April 1981 (01.04.81), page 2, line 45 - page 3, line 44, figures 1-17 --	1-6
A	GB 2142243 A (MÖLNLYCKE AB), 16 January 1985 (16.01.85), page 1, line 1 - line 110, figure 3 -- -----	1-6
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex.		
* Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family		
Date of the actual completion of the international search		Date of mailing of the international search report
12 March 1998		17 -04- 1998
Name and mailing address of the ISA/ Swedish Patent Office Box 5055, S-102 42 STOCKHOLM Facsimile No. +46 8 666 02 86		Authorized officer Leif Brander Telephone No. +46 8 782 25 00

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/SE 97/02186

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 0191004 A2	13/08/86	SE 0191004 T3 CA 1272353 A JP 1945135 C JP 6079614 B JP 61181461 A SE 450684 B,C SE 8500492 A US 4710188 A	07/08/90 23/06/95 12/10/94 14/08/86 20/07/87 05/08/86 01/12/87
GB 2057266 A	01/04/81	CA 1057462 A FR 2463610 A,B GB 1570544 A JP 1237045 C JP 53042489 A JP 59010221 B NL 185822 B,C NL 7906094 A US 4067336 A US 4182334 A	03/07/79 27/02/81 02/07/80 31/10/84 17/04/78 07/03/84 01/03/90 11/02/81 10/01/78 08/01/80
GB 2142243 A	16/01/85	AU 566516 B AU 2936984 A BE 900006 A CA 1225201 A CH 664688 A,B DE 3422748 A,C DK 158134 B DK 309384 A FR 2548891 A,B JP 1353195 C JP 60018166 A JP 61021665 B LU 85429 A NL 191728 B,C NL 8401992 A SE 449172 B,C SE 8303663 A US 4627846 A	22/10/87 03/01/85 15/10/84 11/08/87 31/03/88 03/01/85 02/04/90 28/12/84 18/01/85 11/12/86 30/01/85 28/05/86 30/11/84 02/01/96 16/01/85 13/04/87 28/12/84 09/12/86

